UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/653,888	09/01/2000	Thomas Anthony Cofino	YOR920000607US1	5996

7590 11/28/2006

HARRINGTON & SMITH LLP
4 RESEARCH DRIVE
SHELTON, CT 06484-6212

EXAMINER	
SHAH, AMEE A	

ART UNIT	PAPER NUMBER
3625	

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/653,888	COFINO ET AL.	
	Examiner	Art Unit	
	Amee A. Shah	3625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,5,6,9,11-15 and 18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 5, 6, 9, 11-15 and 18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 1, 5, 6, 9, 11-15 and 18 are pending in this action.

Election/Restrictions

Applicant's election without traverse of invention I, claims 1, 5, 6, 9, 11-15 and 18 in the reply filed on August 21, 2006, is acknowledged. Examiner notes that applicant elected a species; however, the requirement for restriction mailed July 20, 2006, was for an election of an invention. Therefore, the Examiner presumes that Applicant intended to elect invention I.

Claims 19-54 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on August 21, 2006.

Response to Arguments

Applicant's arguments with respect to claims 1, 5, 6, 9, 11-15 and 18, filed May 2, 2006, have been considered but are moot in view of the new ground(s) of rejection necessitated by the amendments. However, the Examiner notes that applicant did not provide any arguments for the rejections except to state that the prior art does not disclose the claim amendments.

Examiner Note

Examiner cites particular pages, columns, paragraphs and/or line numbers in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific

limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that, in preparing responses, the applicant fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 5, 6, 9, 11, 12, 14, 15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wenig et al., US 6,286,030 B1 (hereafter referred to as "Wenig") in view of Nareddy et al., US 6,785,666 B1 (hereafter referred to as "Nareddy") and further in view of Parker v. Flook, 198 USPQ 193 (1978) (hereafter referred to as "Parker") and Yaginuma et al. US 6,477,538 B2 (hereafter referred to as "Yaginuma").

Referring to claim 1. Wenig discloses a method of graphically representing clickstream data of a shopping session on a network comprising:

- extracting one or more shopping sessions from one or more Web server logs, said shopping sessions comprising shopping steps of one or more Web server systems of one or more online stores (*see at least* Abstract, Figs. 1-4, col. 4, lines 27 – 56, col. 5, lines 4-12 and 20-40, col. 7, lines 57-67 and col. 9, line 56 through col. 10, line 8 – note that the shopping sessions are the user sessions that may or may not culminate in a purchase and the shopping steps are the requests and responses through which the analyzer can step through in order to recreate the session); and

- deriving one or more micro-conversions from the one or more shopping sessions, the micro-conversion comprising a shopper's conversion from one shopping step to another (*see at least* col. 5, lines 3 – 13).

Wenig discloses extracting shopping sessions comprising shopping steps and essentially the user's progression through a shopping endeavor (see at least, col. 4, lines 33-40, col. 5, lines 4-12 and 20-40 and col. 9, line 56 through col. 10, line 8), but does not explicitly disclose the shopping steps comprising at least one of product viewing, product selection, shopping cart placement and purchase, although at least one of these steps is inherently included in a shopping

session that culminates in a purchase. However, Nareddy discloses a method for providing customers with access to and analysis of event data stored in log files and collected by a data warehouse system where the event data comprise clickstream log file, product data (such as products offered) and shopping cart data (i.e. items placed in shopping cart) (col. 4, lines 2-15). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have modified the method of Wenig to include the teachings of Nareddy to specifically store the data in the steps of a shopping session comprising products viewed, products selected, product placed in a shopping cart or purchases. Doing so would facilitate the analysis of the sequence of events that occurred during a particular user session to determine how to improve the website to achieve more purchases, as explicitly suggested by Wenig (col. 1, line 50 through col. 2, line 2).

Wenig further discloses graphically representing clickstream data from one or more micro-conversions in a first visualization (*see at least* Figs. 6 and 7, col. 1, lines 47 – 50, col. 5, lines 14 – 15, and col. 7, lines 44 – 67). Note that the micro-conversion is defined in the claims as the conversion from one shopping step to the next (i.e. clicking on the next button/making a request), and the shopping steps, including products viewed, product selected, products placed in the shopping cart or purchases, are captured and stored as data in Web server logs (i.e. database). This stored data from these shopping sessions consist of recorded data as disclosed, claimed and argued are in the form of non-functional descriptive material that is not functionally involved in the extracting, deriving or representing steps recited. (*see* MPEP §2106). The steps of extracting data, deriving one or micro-conversions and graphically representing the data would be performed in the same manner regardless of the exact composition and/or definition of shopping

steps that are stored. Thus, the non-functional descriptive material will not distinguish the claimed invention from the prior art Wenig in terms of patentability. *See In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowrey*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994).

Moreover in Wenig, the first visualization is disclosed as being a screen shot of a particular web page (col. 9, lines 23 - 24). Like Applicant's recited first visualization, Wenig's first visualization serves to depict a point of a problem at which at least one shopping session ends prior to purchase. Again, like Applicant's recited first visualization, Wenig teaches that such point at which at least one shopping session ends serves to graphically represent the trouble spot to a user who can then proceed to produce any necessary fixes so that a user is better able to a target destination or action desired by the user/webmaster to improve the shopping for future shoppers (*see at least* col. 1, lines 26 – 35 and line 65 through col. 2, line 2). While Wenig does not disclose that the first visualization comprises the specific visualization recited by Applicant (i.e. "a first visualization comprising at least three axes...session ends"), Wenig does, nonetheless, teach that all of the necessary clickstream data used for graphically representing Applicant's recited first visualization is resolved prior to the step of actually visually representing such data. All that remains is the manner in which one of ordinary skill in the art elects to present such clickstream data in a manner manifestly discernable and more easily understood by the user.

It would have been obvious to one of ordinary skill in the art to have presented such clickstream data as a first visualization comprising at least three axes representing

shopping steps and one or more lines that each correspond to at least one said shopping session, at least one of the lines intersecting less than all of the axes and terminating at the axis wherein the at least one said shopping session ends. This is because, as stated by the court in Parker v. Flook, 198 USPQ 193 (1978) ("Parker"):

> A competent draftsman could attach some form of post-solution activity to almost any mathematical formula; the Pythagorean theorem would not have been patentable, or partially patentable, because a patent application contained a final step indicating that the formula, when solved, could be usefully applied to existing surveying techniques.

The Court in Parker makes clear that once the objective of the method has been achieved, the act of graphically depicting the result does not serve to otherwise "transform" such result in any non-obvious way. In this case, the object of the method is achieved as disclosed by Wenig--with the exception of the specific form of the graphical depiction recited by Applicant. However, this specific form of graphical depiction does not result in any further "transformation" of the result itself, but merely serves to differently represent, in manifest form, the result of the same completed method.

To that end, the Examiner notes that Applicant's specific form of graphical representation is a well-known drafting technique used to provide a graphical representation of complex data. For example, Yaginuma teaches that complex data may be graphically represented in what is described as a "parallel coordinate system" (*see at least* Abstract, Figs. 2 and 6, col. 2, lines 13 – 15 and lines 30 – 37, and col. 6, lines 29 - 34). Such system comprises at least three axes and one or more lines that each correspond to complex data retrieved and plotted in graphical "parallel coordinate system". Accordingly, the combined method of Wenig/Nareddy/Parker/

Yaginuma would have resulted in a non-obvious first visual representation manifest in the form of a parallel coordinate system with an indication of the termination of the shopping session being represented by a line intersecting less than all of the axes of the coordinate system as taught by Yaginuma--rather than by the screen shot of the terminal web page already taught by Wenig.

Referring to claim 5 – 7, 9, 11, 12, 14, 15 and 18. Wenig in view of Nareddy and further in view of Parker/Yaginuma discloses the method of claim 1 and Yaginuma is an example, in the same area of providing a visualization of complex data to enhance understanding as well as a visualization in graphic form including a parallel coordinate system (*see at least* Abstract, Figs. 1-19, col. 1, lines 16 – 43, col. 5, lines 6 – 67, col. 6, lines 1 – 8 and 30 – 34, and col. 7, lines 19 – 29). Note that the exact definition of the variable values, whether timestamps, filters, hyperlink associations or fuel consumption, does not functionally alter the step of graphically representing data in a first visualization with a parallel coordinate system.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Wenig, Nareddy and Parker/Yaginuma as applied to claims 1, 5 and 12 above, and further in view of Hunt et al., US 6,223,215 B1 (hereafter referred to as "Hunt").

Referring to claim 13. The combination of Wenig, Nareddy, Parker and Yaginuma substantially disclose and teach the applicant's invention, but does not discloses where the categorizer includes one or more at least one of the following: the referrer Web sites of sessions,

internet service providers of sessions, lengths of sessions, methods used to find product information by sessions, methods used to find service information by sessions, products viewed, services viewed items placed in a shopping cart, items purchased by sessions, time points of sessions, the geographic regions where sessions originated, the ages, sex, education, and income of owners of session originators, sales history of the owners of sessions, and Web page patterns accessed by one of sessions the and owners of sessions. Hunt discloses a method for interactive network session tracking where the categorizer includes one or more at least one of the following: the referrer Web sites of sessions, internet service providers of sessions, lengths of sessions, methods used to find product information by sessions, methods used to find service information by sessions, products viewed, services viewed items placed in a shopping cart, items purchased by sessions, time points of sessions, the geographic regions where sessions originated, the ages, sex, education, and income of owners of session originators, sales history of the owners of sessions, and Web page patterns accessed by one of sessions the and owners of sessions (*see at least* Fig. 3, col. 2, lines 8 - 20, and col. 5, lines 47 – 65).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the combination of Wenig, Nareddy and Parker/Yaginuma with the method of Hunt in order to more fully understand both the origin of the shopper and to ensure that the online site provides more tailored advertising for example to individual shoppers.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Barg et al., US 2002/0070953 A1, discloses systems and methods for visualizing and analyzing conditioned data (*see, e.g.,* Figs. 4-24 and pages 2, 5-11, and 13-21).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amee A. Shah whose telephone number is 571-272-8116. The examiner can normally be reached on Mon.-Fri. 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Smith can be reached on 571-272-6763. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AAS
November 17, 2006

JEFFREY A. SMITH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600